Claims

1. A method for the transmission of information by means of GPRS in an IP network, in particular a wireless LAN and/or a Hiperlan network, having a preferably mobile terminal which is connected to the IP network so that IP packets can be exchanged, with an IP serving GPRS support node in the IP network,
- wherein, during initialization of the connection between the terminal and the IP serving GPRS support node, a tunnel which tunnels GPRS information is established on the basis of IP packets,
- wherein the information is transmitted through the tunnel,
- wherein the IP serving GPRS support node is connected via a network to further serving GPRS support nodes and, depending on the direction of communication, unpacks and/or repacks the information in order to send the information to the further serving GPRS support nodes, or packs the information in order to send it through the tunnel to the terminal.

2. The method as claimed in the preceding method claim, characterized in that software which unpacks the tunneled GPRS information is installed on the mobile terminal.

3. The method as claimed in the preceding method claim, characterized in that during initialization of the connection it is checked whether the mobile terminal is permitted access to a GPRS network, with known security checks based on the GPRS mode being performed.

4. The method as claimed in the preceding method claim, characterized in that broadcast messages are used to

seek an IP serving GPRS support node in the IP network in order to establish a tunnel.

5. The method as claimed in one or more of the preceding method claims, characterized in that an HLR service is present which permits the terminal to be determined and/or located both on the basis of the IP address of the terminal and on the address information of GPRS.

6. The method as claimed in one or more of the preceding claims, characterized in that a handover may be performed both on the IP level and on the GPRS level, depending on the network in which the terminal is located.

7. The method as claimed in one or more of the preceding claims, characterized in that encryption is performed on the GPRS and/or IP level, preferably by means of IPSec.

8. A device for providing GPRS services in an IP network, having means that enable a functionality of a serving GPRS support node in a GPRS and/or UMTS, characterized in that means are present which enable communication with a terminal via GPRS through an IP tunnel.

9. The device as claimed in the preceding device claim, characterized in that means are present which enable a gateway functionality, in particular the routing of information into other networks.

10. The device as claimed in one or more of the preceding device claims, characterized in that means are present which enable the mapping of an IP address in an HLR.

11. The device as claimed in one or more of the preceding device claims, characterized in that means are present with which a handover may be performed both on the IP level and on the GPRS level, depending on the network in which the terminal is located.

12. The device as claimed in one or more of the preceding device claims, characterized in that means are present which enable encryption on the GPRS and/or IP level, preferably by means of IPSec.

13. The device as claimed in one or more of the preceding device claims, characterized in that means are present which can receive broadcast messages of a terminal in order to establish a GPRS tunnel connection thereby.

14. A terminal having means for communication in an IP network, in particular a mobile terminal, characterized by means that enable information to be exchanged via GPRS through an IP tunnel.

15. The terminal as claimed in the preceding terminal claim, characterized in that the terminal supports both wireless LAN and UMTS and/or GSM.

16. The terminal as claimed in one or more of the preceding terminal claims, characterized in that means are present which enable address conversion, in particular from IPv4 to IPv6 and vice versa, as well as NAT and/or masquerading.

17. The terminal as claimed in one or more of the preceding terminal claims, characterized in that means are present which enable encryption of the

tunneled information, or encrypt the tunnel packets themselves, with IPSec preferably being used.

18. The terminal as claimed in one or more of the preceding terminal claims, characterized in that means are present which enable authentication in the GPRS network.

19. The terminal as claimed in one or more of the preceding device claims, characterized in that a software layer that enables the functionality described is present, said layer preferably having access to an IP stack.

20. Software for a terminal in an IP network, in particular a mobile terminal such as a PDA or a mobile phone, characterized in that a process is implemented which enables information to be exchanged via GPRS through an IP tunnel.

21. A data carrier having a data structure that can be loaded into a terminal, wherein the data structure includes the software according to the preceding claim.